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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,742	06/20/2006	Maurizio Lazzerini	41612/AJ/lp	7104
7590 Modiano & Associati Via Meravigli 16 Milano, 20123 ITALY				
			EXAMINER NELSON, MICHAEL B	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 04/29/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/583,742

Applicant(s)

LAZZERINI, MAURIZIO

Examiner

MICHAEL B. NELSON

Art Unit

1794

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-66 is/are pending in the application.
- 4a) Of the above claim(s) 55-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-54 and 58-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/083)
Paper No(s)/Mail Date 06/20/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election on 01/27/09 to group I, claims 25-54, 58-66 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 25-54 and 58-66 are currently under examination on the merits. Claims 55-57 are withdrawn from consideration for being drawn to non-elected subject matter.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 25-47 and 58-63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 25 recites that the thickness have both a uniformity of within 4% and at the same time have a change in thickness of between 99 and 75%, which is vague and indefinite in that the two limitations seem to be mutually exclusive.
5. Claims 32 and 41 recite the term optical density as a unit of thickness, which is vague and indefinite in that it is unclear what units of measurement the optical density is meant to relate to and it is unclear how optical density can be a measurement of thickness and lastly it is unclear which optical wavelengths are meant to be used to measure the optical density.

6. Claims 33 and 35 recite "a solid background" which is vague and indefinite in that it is unclear if "solid" refers to the optical properties (i.e. opaque) or the continuity (i.e. as oppose to the discontinuous hologram of claim 36) or structural integrity.

DETAILED ACTION

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 25, 26, 32, 37, 38, 41, 42, 45, 48, 49, 52, 60, 63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dames et al. (U.S. 5,697,649).

10. Regarding claims 25, 26, 32, 37, 38, 41, 42, 45, 48, 49, 52, 60, 63 and 66, Dames et al. discloses a security thread (C1, L5-15) having a metallic magnetic layer thereon with different thickness (Fig. 2, C4, L55-C5, L20). The different areas (22a, 22b and 22c) all have uniform thicknesses inside of their respective areas and have different relative thickness to their adjacent areas (i.e. locally controlled thicknesses, C6, L50-60). While the uniformity is not explicitly

disclosed as being within 4% as instantly claimed, one having ordinary skill in the art would have optimized the process for maximum uniformity in order to ensure that the particular magnetic characteristics within the areas having the same thickness are uniform for testing purposes (C4, L60-67). Likewise, the particular relative thicknesses of the differing areas would have been adjusted based on the desired change in magnetic properties from area to area. The thickness of the regions is not particularly limited and covers a wide range of thicknesses (i.e. 0.01 to 10 micrometers, C5, L40-60). The symbols formed in the metal areas are visually detectable (Fig. 1 and 2). The magnetic regions, 22, are disclosed as being continuous between partition regions, 24, and at the same time are discontinuous on a larger scale as a result of partition regions, 24 (C4, L45-55). The partition regions are also disclosed in one embodiment as being filled with metallic, magnetic ink which would render the magnetic layer continuous (C5, L1-10 and C4, L40-45). The security thread, having visually identifiable features is designed to be implemented on the outer face of a security document.

11. Claims 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dames et al. (U.S. 5,697,649) as applied to claim 25 above, and further in view of Burchard et al. (U.S. 6,030,691).

12. Regarding claims 27-31, Dames et al. discloses all of the limitations as set forth above. Additionally, Dames et al. discloses that the non-magnetic ink include aluminum and nickel (C4, L30-35). Dames et al. does not disclose the other particular metals as instantly claimed; however, Burchard et al. which is also directed towards metal ink containing security threads, discloses the use of bronze inks as an equivalent alternative to lustrous metallic inks (i.e. aluminum and nickel inks) (C6, L15-25). Bronze ink is an ink that would contain a mix of

copper, aluminum, chromium and other metals. The inventions of both Dames et al. and Burchard et al. are directed towards metallic ink containing security threads and therefore it would have been obvious to one having ordinary skill in the art to have used the bronze ink of Burchard et al. for the metallic inks of Dames et al. because it would amount to nothing more than a use of a known metallic ink for its intended use in a known environment to accomplish an entirely expected result.

13. Claims 33, 34, 43 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dames et al. (U.S. 5,697,649) as applied to claim 25 above, and further in view of Melling et al. (U.S. 4,943,093).

14. Regarding claims 33, 34, 43 and 50, Dames et al. discloses all of the limitations as set forth above. Dames et al. does not disclose the inclusion of fluorescent materials. Melling et al. discloses the addition of both continuous and discontinuous fluorescent coatings in conjunction with a magnetic security thread (Fig. 19 and 20, C7, L5-15). Both Dames et al. and Melling et al. are directed towards magnetic security threads and therefore it would have been obvious to one having ordinary skill in the art to have incorporated fluorescent materials into the thread of Dames et al. as taught by Melling et al. for the purposes of imparting fluorescent properties to the security thread.

15. Claims 35, 36, 39, 40, 44, 46, 47, 51, 53 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dames et al. (U.S. 5,697,649) as applied to claim 25 above, and further in view of Takeuchi et al. (U.S. 4,856,857).

16. Regarding claims 36, 39, 40, 44, 46, 47, 51, 53 and 54, Dames et al. discloses all of the limitations as set forth above. Dames et al. does not disclose that a hologram be used. Takeuchi

et al. discloses a transparent hologram which can be placed on top of visually identifiable security devices in sensitive documents (Fig. 12). The hologram is provided on a solid support structure and is discontinuous in that it is not provided over the entire support structure (Fig. 12). The hologram functions via the refraction of light and is disclosed as being a rainbow type hologram which produces changing colors (C4, L40-55). It would have been obvious to have incorporated the hologram of Takeuchi et al. with the security device of Dames et al. in order to impart holographic functionality.

17. Claims 58, 59, 61, 62, 64, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dames et al. (U.S. 5,697,649) as applied to claim 25 above, and further in view of Seifert (U.S. 5,944,927).

18. Regarding claims 58, 59, 61, 62, 64, 65, Dames et al. discloses all of the limitations as set forth above. Dames et al. does not specifically disclose the full embedding of the security thread into the security document, however, Seifert discloses a process for fully embedding a security thread into a security document (See Abstract), which would have been obvious to one having ordinary skill in the art because it produces a final document with a uniform thickness.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL B. NELSON whose telephone number is (571) 270-3877. The examiner can normally be reached on Monday through Thursday 6AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1794

/MN/
03/20/09